DETAILED ACTION

Response to Amendment

1. The amendment filed on 07/14/2009 is entered and acknowledged by the Examiner. Claims 1, 4-16 and newly added Claims 17-22 are currently pending in the instant application. Claims 2 and 3 have been canceled.

2. The objection of Claims 1 and 10 due to minor informality is rendered moot in view of Applicant's amendment. The rejection of Claim 11 under 35 U.S.C. 112, second paragraph, is rendered moot in view of Applicant's amendment. The rejections of Claims 1 and 4-16 under 35 U.S.C. 103(a) over the prior art of record are rendered moot in view of Applicant's remark, amendment, and cancellation.

Examiner's Statement of Reason for Allowance

3. Claims 1 and 4-22 are allowed over the prior art of record.

4. The following is an examiner's statement of reasons for allowance:

5. **JP 11-163589** (Komori et al.) teaches a resin composite composition useful as electromagnetic wave shielding composition having a sea-island structure containing 10-80 wt. % of conductive filler (i.e. component (B) of the present application). (See Abstract; [0014]). The sea-island structure is form from two kinds of resin (See [0013]). The sea-island structure is considered as a multi-component polymer type resin binder (A) of the present application. The sea-island is a micro-phase separation structure

comprising a resin component constituting the dispersion phase (i.e. island) and a resin component constituting the continuous phase (i.e. sea) as claimed. Komori et al. teaches the composite comprising of 10-80 wt. % of conductive filler (component (B)), thus the remaining balance of sea-island (component (A)) should range from 90-20 wt. % of the total composite composition. The amount of sea-island overlaps with the claimed amount of component (A) and component (B) of the instant applicant. The difference between the instant applicant and Komori et al. is that Komori et al. failed to teach or suggest the number-average particle size of the dispersion phase (sea) of 0.002-2 microns. Komori et al. also failed to teach or suggest the number-average particle size of the dispersion phase in the component (A) is smaller than the number-average particle size or number average fiber diameter of the component (B) as required by independent Claim 1, more specifically Komori et al. also failed to teach or suggest the ratio (Pa/Pb) of the number-average particle size (Pa) of the dispersion phase in the component (A) and the number-average particle size or number average fiber diameter (Pb) of the component (B) is 0.8 or less as required by independent Claim 17.

6. **U.S. Pat. 5,866,025** (Kataoka et al.) teaches a molding composition comprising of a sea-island structure (i.e. a multi-component polymer type resin binder of component (A)) containing non-crystalline resin and thermosetting resin (Col. 16, lines 9-51) and 1-60 wt. % of reinforcement fibers such as carbon fiber (i.e. conductive material of component (B)). (Col. 4, lines 25-28). Kataoka et al. suggest that the island may have an average particle size of not greater than 200 microns (Col. 17, lines 3-6). Kataoka et

al. failed to teach or suggest the number-average particle size of the dispersion phase (sea) of 0.002-2 microns. Kataoka et al. also failed to teach or suggest the number-average particle size of the dispersion phase in the component (A) is smaller than the number-average particle size or number average fiber diameter of the component (B) as required by independent Claim 1, more specifically Kataoka et al. also failed to teach or suggest the ratio (Pa/Pb) of the number-average particle size (Pa) of the dispersion phase in the component (A) and the number-average particle size or number average fiber diameter (Pb) of the component (B) is 0.8 or less as required by independent Claim 17.

7. **JP 10-204305** (Inoue et al.) teaches a resin composition useful as electromagnetic wave shielding material comprising of a two-resin component system forming a sea-island structure ([0018] and [0029]) and 1-50 wt. % of conductive filler having a mean particle diameter in the range of 0.001-100 microns ([0045-0046] and [0050]). Inoue et al. failed to teach or suggest the amount of component (B), electroconductive material, in an amount of 60-98 mass % based on the total amount of component (A) and component (B) as required by independent Claim 1. Inoue et al. also failed to teach or suggest number-average particle size of the dispersion phase (sea) of 0.002-2 microns. Kataoka et al. failed to teach or suggest the number-average particle size of the dispersion phase in the component (A) is smaller than the number-average particle size or number average fiber diameter of the component (B) as required by independent Claim 1, more specifically Inoue et al. also failed to teach or suggest the ratio (Pa/Pb) of the number-average particle size (Pa) of the dispersion

phase in the component (A) and the number-average particle size or number average fiber diameter (Pb) of the component (B) is 0.8 or less as required by independent Claim 17.

8. **JP 02-113068** (Mori et al.) teaches an electrically conductive resin composition useful as electromagnetic shielding material comprising of a thermoplastic sea-island structure and 1-40 vol. % of conductive filler (Abstract). Mori et al. failed to teach or suggest the amount of component (B), electroconductive material, in an amount of 60-98 mass % based on the total amount of component (A) and component (B) as required by independent Claim 1. Mori et al. also failed to teach or suggest number-average particle size of the dispersion phase (sea) of 0.002-2 microns. Mori et al. failed to teach or suggest the number-average particle size of the dispersion phase in the component (A) is smaller than the number-average particle size or number average fiber diameter of the component (B) as required by independent Claim 1, more specifically Mori et al. also failed to teach or suggest the ratio (Pa/Pb) of the number-average particle size (Pa) of the dispersion phase in the component (A) and the number-average particle size or number average fiber diameter (Pb) of the component (B) is 0.8 or less as required by independent Claim 17.

9. Furthermore, it would not be obvious for a skilled artisan to modify the above references to arrive at a formula comprising of 60-98 wt. % of an electroconductive material (component (B)) and 40-2 mass % of a sea-island structure wherein the island (dispersion phase) and sea (continuous phase) comprises of polymer and the number-average particle size of the island is smaller than the than the number-average particle

size or number average fiber diameter of the electroconductive material, more specifically the ratio of the number-average particle size of the island and the number-average particle size or number average fiber diameter electroconductive material is 0.8 or less. In fact, none of the prior art of record teaches or suggests a composition that relates the size of the island (dispersion) with the size or diameter of the electroconductive material. Thus, independent Claims 1 and 17 are allowed over the prior art of record. Claims 4-16 and 18-22 are allowed based on their dependencies to Claims 1 and 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH T. NGUYEN whose telephone number is (571) 272-8082. The examiner can normally be reached on Monday-Friday 7:00-4:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Kopec/
Primary Examiner, Art Unit 1796

/Khanh Tuan Nguyen/
Examiner
10/17/ 2009